

EXHIBIT B: CLEAN VERSION OF PENDING CLAIMS
U.S. APPLICATION SERIAL NO. 09/783,474
(ATTORNEY DOCKET NO. 9301-129)

(as amended October 4, 2002)

51. A method for diagnosing a subject having a disease, said method comprising
- (1) determining a level of said disease state in said subject by a method comprising determining, for said disease state, an interpolated response profile, extracted from interpolated response curves correlated to level of said disease state, for which similarity is greatest between a diagnostic profile and said determined interpolated response profile, said diagnostic profile comprising measured amounts of a first plurality of cellular constituents in one or more cells of said subject, and wherein said interpolated response curves are the products of a method comprising
- (i) providing response profiles of one or more cells of one or more analogous subjects for said disease state wherein said response profiles comprise measured amounts of a second plurality of cellular constituents in said cells of said one or more analogous subjects at a plurality of levels of said disease state, said second plurality comprising at least a portion of said first plurality, and
- (ii) interpolating said response profiles so that a response profile may be extracted over a range of levels of said disease states,
- wherein the level of disease state correlated to said determined interpolated response profile indicates said level of said disease state;
- (2) determining statistical significance of said level of said disease state; and
- (3) diagnosing said patient if said statistical significance of said level of said disease state is at least 95%.

52. (Amended) The method of claim 51, wherein said interpolated response profile yields a maximum correlation between said diagnostic profile and said interpolated response profile.

53. (Amended) The method of claim 52, wherein said statistical significance of said

level of said disease state is determined by comparing the value of said maximum correlation to an expected probability distribution of values of maximum correlation.

54. (Amended) The method of claim 53, wherein said expected probability distribution of values of maximum correlation is obtained by a method comprising

(1) randomizing said diagnostic profile data with respect to cellular constituents to generate a permuted diagnostic profile;

(2) obtaining an interpolated response profile, said interpolated response profile yielding a maximum correlation between said permuted diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of maximum correlation.

55. (Amended) The method of claim 53, wherein said expected probability distribution of values of maximum correlation is obtained by a method comprising

(1) randomizing said response profile data with respect to the cellular constituents to generate permuted interpolated response curves;

(2) obtaining an interpolated response profile, said interpolated response profile being extracted from said permuted interpolated response curves and yielding a maximum correlation between said diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of maximum correlation.

56. (Amended) The method of claim 51, wherein said interpolated response profile yields a minimum difference between said diagnostic profile and said interpolated response profile.

57. (Amended) The method of claim 56, wherein said statistical significance of said level of said disease state is determined by comparing the value of the minimum difference to an expected probability distribution of values of minimum difference.

58. (Amended) The method of claim 57, wherein said expected probability

distribution of values of minimum difference is obtained by a method comprising

(1) randomizing said diagnostic profile data with respect to the cellular constituents to generate a permuted diagnostic profile;

(2) obtaining an interpolated response profile, said interpolated response profile yielding a minimum difference between said permuted diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of minimum difference.

59. (Amended) The method of claim 57, wherein said expected probability distribution of values of minimum difference is obtained by a method comprising

(1) randomizing said response profile data with respect to the cellular constituents to generate permuted interpolated response curves;

(2) obtaining an interpolated response profile, said interpolated response profile being extracted from said permuted interpolated response curves and yielding a minimum difference between said diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of minimum difference.